U.S. ENVIRONMENTAL PROTECTION AGENCY
REGION 10
1200 SIXTH AVENUE
SEATTLE, WASHINGTON 98101

JUN 30 1988

REPLY TO
ATTN OF: WD-134

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

Chris Janes, Vice President and General Manager
Cyprus Thompson Creek Mining Company
P.O. Box 62
Clayton, Idaho 83227

Re: NPDES Permit No. ID-002540-2 (Molybdenum Mine)

Dear Mr. Janes:

The Environmental Protection Agency (EPA), Region 10, has made a final determination to reissue the enclosed National Pollutant Discharge Elimination System (NPDES) permit to the Cyprus Thompson Creek Mining Company. Extensive comments were received from the company during public notice of the draft permit and subsequent meetings were held with EPA and the Idaho Department of Health and Welfare, Division of Environmental Quality (DEQ) to discuss those comments. The final permit retains the initially proposed water quality-based toxic effluent limitations except as noted below.

In establishing toxics controls, EPA used NPDES permit procedures developed in accordance with the March 1984 "Policy for Development of Water Quality-Based Permit Limitations for Toxic Pollutants." The policy requires NPDES permits to assure compliance with applicable State Water Quality Standards for toxic pollutants through derivation of effluent limitations based on toxic water quality criteria and/or use of biological procedures to assess toxic impacts on aquatic life.

EPA's determination of the applicable toxics criteria to be used in establishing effluent limitations for Cyprus was primarily based upon provisions of the Idaho Water Quality Standards and Wastewater Treatment Requirements (16 IDAPA, Title 1, Chapter 2). Section 01.2130 of the standards, specifies the beneficial uses for which Thompson Creek (SB-130) is to be protected. The General Water Quality Criteria (Section 01.2200, 01) prohibit man-caused point source discharges resulting in hazardous materials concentrations that adversely affect designated or protected beneficial uses of State waters. The hazardous materials definition contained in Section 01.2003, 20 states that "published guides such as EPA's Quality Criteria for Water (1976) . . . subsequent revisions, and more recent research papers, regulations and guidelines will be used in identifying individual and specific materials and in evaluating the tolerance levels of the identified materials for the beneficial uses indicated." EPA's "Quality Criteria for Water, 1986" (EPA 440/5-86-001) (the "Gold Book"), is the most current revision to the referenced 1976 publication and contains acute and chronic toxicity levels for metals typically associated with discharges from ore mining waste rock disposal. In accordance with requirements of the Idaho Water Quality Standards and EPA's 1984 policy for addressing toxic pollutants, these criteria were used to establish effluent limitations in the Cyprus Thompson Creek NPDES permit reissuance.

The methodology used for deriving specific criteria-based limitations is contained in EPA's "Technical Support Document for Water Quality-Based Toxics Control" (EPA 440/4-85-032) and the "Permit Writers Guide to Water Quality-Based Permitting for Toxic Pollutants" (EPA 440/4-85-005). Maximum allowable discharge concentrations in the Cyprus permit have been calculated by applying these procedures to the "Gold Book" acute and chronic toxicity criteria for fresh water biota. The water quality limiting designations for Thompson Creek specified in the Idaho Water Quality Standards are for cold water biota and salmonid spawning.

Cyprus has been provided copies of the above referenced publications and the effluent limitations derivation procedures were discussed with EPA staff.

One of the company's main concerns was over the use of 25% of the stream for mixing zone purposes, pursuant to the recommendations in the Idaho Water Quality Standards and Wastewater Treatment Requirements (16 IDAPA Title 5, Chapter 2, Section 01.2400.03). The company requested DEQ to reconsider its position on the 25% mixing zone requirement. DEQ reviewed that request and, based on a dye study conducted by their Pocatello field office, recalculated effluent limitations using 100% of the Thompson Creek flow for a dilution factor. These recalculations resulted in changes to the lead limitation only. The remaining toxic metal limitations are based on acute criteria at the point of discharge. Lead is the only parameter that had a more limiting chronic criteria for which a dilution factor was applicable.

Despite the company's problems with the water quality-based limitations, available data show that current discharges can comply with these limitations if background levels are considered. The final permit now includes a provision allowing for the background concentrations to be substituted as the effluent limitation if receiving water monitoring data is submitted verifying background concentrations greater than the applicable effluent limit. Under no circumstances, however, can the allowable effluent limitation exceed the promulgated technology based (BAT) limitations specified in 40 CFR Part 440.

The company is concerned over the use of the Gold Book Criteria and the water quality-based limitation derivation process for establishing controls on a future tailings impoundment discharge, and application of anti-backsliding rules to such a discharge. It must be emphasized that the current permit is only for the waste rock sedimentation ponds discharge. The basis for potential effluent limitations associated with a process tailings discharge would be addressed, as an independent issue, and upon the company's submittal of an NPDES application. Accordingly, concerns regarding anti-backsliding provisions are not relevant to the tailings impoundment situation, as limitations applied to the existing Thompson Creek permit discharges can not be correlated with the proposed discharge from a different source to a different receiving water.

Other changes to the final permit include the addition of the numeric level of detection for mercury (0.0002 mg/l) as the maximum daily limitation, and a minor correction to the limitation for zinc resulting from recalculations utilizing a recently established computer program based on the referenced permit limitations derivation methodology. Parts II, III and IV of the permit have also been modified to incorporate regulatory language required by the Water Quality Act of 1987.

We recognize the efforts that Cyprus representatives have made to resolve concerns regarding the methodology employed by EPA and appreciate the specific input provided by Bert Doughty and Jamie Sturgess who have both been instrumental in maintaining the excellent environmental record of Cyprus Thompson Creek.

This permit will become effective 30 days after the issuance date unless a request for an evidentiary hearing which meets the requirements of 40 CFR 124.74 is received. A copy of these requirements is enclosed for your information.

Sincerely,

Robert S. Burd
Director, Water Division

Enclosures

cc: Al Murray, IDHW-DEQ, Boise
Walt Poole, IDHW-DEQ, Pocatello

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Director, Water Division

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cc: Al Murray, IDHW-DEQ, Boise
Walt Poole, IDHW-DEQ, Pocatello

bcc: I00
WCS

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	CONCURRENCES					
SYMBOL						
SURNAME	KAWABATA	MOCHNICK	GEREN			
DATE		6/28/88	6/30			

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*U.S. GPO : 1984-436-836